



# Effect of Reducing Brain Lactate Levels by Blocking Glutamate Receptors in Panic Disorder Patients



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## Abstract

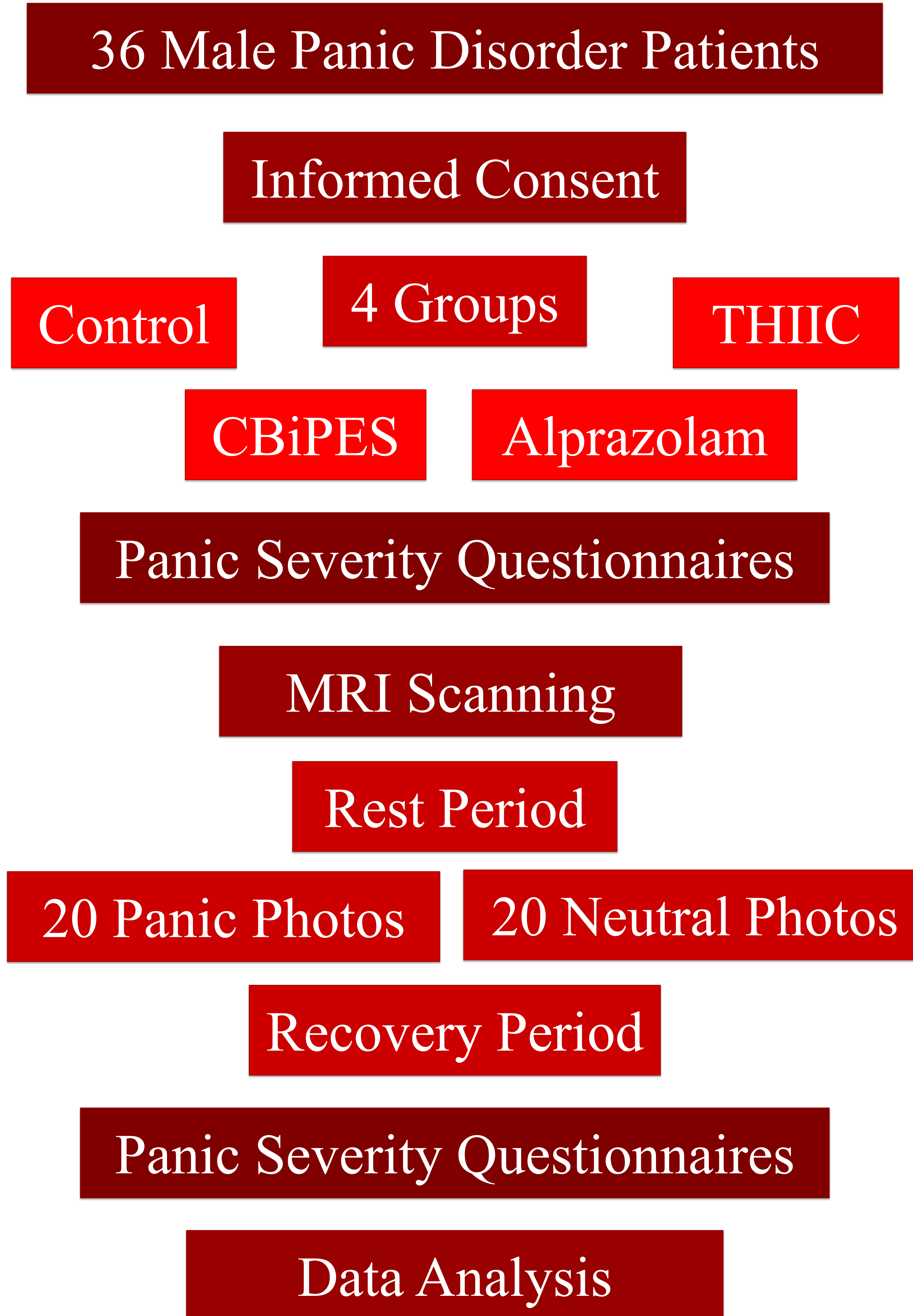
**PURPOSE:** The purpose of this study was to evaluate the role of glutamate receptor blockers in untreated panic disorder (PD) patients during visual panic stimulation to evaluate its ability to reduce panic response.

**METHODS:** Untreated PD patients (N=36) were recruited. Patients were given either a sugar pill, CBiPES, Alprazolam, or THiIC. MRI scanning occurred with 10 minutes of rest – eyes closed, 8 minutes of 40 total photos – 20 neutral & 20 panic, and 10 minutes recovery for 28 total minutes. Panic severity questionnaires were taken before & after MRI scanning.

## Introduction

- ❖ PD can impair brain function<sup>1</sup>
  - ❖ Affects 2-4% of the US<sup>1</sup>
  - ❖ Linked to significant brain lactate level increase<sup>2</sup>
- ❖ Glutamate receptors facilitate brain lactate rise<sup>3</sup>
- ❖ Inhibiting glutamate receptors reduce lactate & panic response<sup>4</sup>
  - ❖ Found in rats<sup>4</sup>
  - ❖ CBiPES, THiIC, Alprazolam<sup>4</sup>

## Methodology



## Sample Panic Photos



## Sample Neutral Photos



## Acknowledgements

- ❖ Jeffrey Hartman, PhD
- ❖ Peer Reviewers & Writing Fellows

## References

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